IN THE SPECIFICATION

Applicant proposes to amend the paragraphs in the specification on page 3, line 24 to page 4, line 31, as follows:

-- In an embodiment ~~as defined in claim 2~~of the invention, the cross-correlation function is calculated as a multiplication of one of the input audio signals in a band-limited, complex domain and the complex conjugated other one of the input audio signals to obtain a complex cross-correlation function which can be thought to be represented by an absolute value and an argument.

In ~~an~~ a further embodiment ~~as defined in claim 3~~of the invention, a corrected cross-correlation function is calculated as the cross-correlation function wherein the argument is replaced by the derivative of said argument. At high frequencies, it is known that the human auditory system is not sensitive to fine-structure phase-differences between the two input channels. However, considerable sensitivity to the time difference and coherence of the envelope exists. Hence at high frequencies, it is more relevant to compute the envelope ITD and envelope coherence for each frequency band. However, this requires an additional step of computing the (Hilbert) envelope. In the embodiment in accordance with the invention as defined in claim 3, it is possible to calculate the complex coherence value by summing the corrected cross-correlation function directly in the frequency domain. Again, the IPD and/or IC can be determined in a simple manner from this sum as the argument and phase of the sum, respectively.

In ~~an~~ a further embodiment ~~as defined in claim 4~~of the invention, the frequency domain is divided into a predetermined number of frequency sub-bands, further also referred to as sub-bands. The frequency range covered by different sub-bands may increase with the frequency. The complex cross-correlation function is determined for each sub-band, by using both the input audio signals in the frequency domain in this sub-band. The input audio signals in the frequency domain in a particular one of the sub-bands are also referred to as sub-band audio signals. The result is a cross-correlation function for each one of the sub-bands. Alternatively, the cross-correlation function may only be determined for a sub-set of the sub-bands, depending on the required quality of the synthesized audio signals. The complex coherence value is calculated by summing the (complex) cross-correlation function values in each of the sub-bands. And thus, also the IPD and/or IC are determined per sub-band. This sub-band approach enables to provide a different coding for different frequency sub-bands and allows to further optimize the quality of the decoded audio signal versus the bit-rate of the coded audio signal.

In ~~an~~ a further embodiment ~~as defined in claim 5~~of the invention, for lower frequencies, the complex cross-correlation functions per sub-band are obtained by multiplying one of the sub-band audio signals with the complex conjugated other one of the sub-band audio signals. The complex cross-correlation function has an absolute value and an argument. The complex coherence value is

obtained by summing the values of the cross-correlation function in each of the sub-bands. For higher frequencies, corrected cross-correlation functions are determined which are determined in the same manner as the cross-correlation functions for lower frequencies but wherein the argument is replaced by a derivative of this argument. Now, the complex coherence value per sub-band is obtained by summing the values of the corrected cross-correlation function per sub-band. The IPD and/or IC are determined in the same manner from the complex coherence value, independent on the frequency.--.